MEDICARE PAYMENT ADVISORY COMMISSION

PUBLIC MEETING

Ronald Reagan Building
International Trade Center
Horizon Ballroom
1300 13th Street, N.W.
Washington, D.C.

Thursday, September 9, 2004
10:36 a.m.

COMMISSIONERS PRESENT:

GLENN M. HACKBARTH, Chair
ROBERT D. REISCHAUER, Ph.D., Vice Chair
JOHN M. BERTKO
FRANCIS J. CROSSON, M.D.
AUTRY O.V. "PETE" DeBUSK
NANCY-ANN DePARLE
DAVID F. DURENBERGER
ARNOLD MILSTEIN, M.D.
RALPH W. MULLER
ALAN R. NELSON, M.D.
CAROL RAPHAEL
DAVID A. SMITH
RAY A. STOWERS, D.O.
MARY K. WAKEFIELD, Ph.D.
NICHOLAS J. WOLTER, M.D.

AGENDA ITEM:

Medicare beneficiaries' use of post-acute care trends, 1996 to 2002
-- Sharon Cheng; Chris Hogan, Direct Research, LLC

MS. CHENG: Our next speaker is Dr. Christopher Hogan, the head of Direct Research LLC. Dr. Hogan is an economist, a policy analyst, and I would like to note, a data wrangler extraordinaire. I would like to just take a moment here to acknowledge that we have been working with Chris now for a couple of years to build the dataset that goes behind the analysis that he is about to present. I would like to thank him for putting the tool together that got us to this point. It has been a treat to work with him on the analysis that we've been able to run off this tool. I hope in a lot of ways it is a marker for more work that we will be able to do in looking across post-acute care settings in the future.

MR. HACKBARTH: Welcome, Chris.

DR. HOGAN: Thank you.

I am here to talk about an update of work that you saw before. I realize now that not all of you have seen the previous work, but rather than bore those who have seen it, I'll just briefly go over it. The outline of the presentation is the following. I'm going to review the methods very briefly, update the trends through 2002. That was the most recent set of data that was available. And then look at the end points on post-acute episodes, which is the only new work in this analysis.

If you will turn to the third slide I'll briefly go through the methods.

My contract would to put together a database of episodes of all post-acute providers so that you could have all the providers on one page. It takes a 5 percent sample of beneficiaries, which is about 2 million people, constructs episodes of care, which sounds easy but is not because post-acute care episodes can be complex, although they fall into relatively few buckets in this analysis. Then measure what happens; how many episodes are there, how much do they cost, how many people use what types of care. And finally, look at the end points of the episodes, where do you end up when the episode is done. And then look for changes from 1996 to 2002.

If you will move to the first slide you pretty much get to the punchline. The first slide has two stacked bars on it. I've stacked the bars so that everything having to do -- the bars should 1996 versus 2002 and I've stacked the bar so that everything having to do with home health is on top and everything not having to do with home health is on the bottom. The bottom line is that everything not having to do with home health increased from 1996 to 2002, and all of the services related to

home health, either community referral, home health as the sole modality post-acute, or home health in conjunction with some other modality post-acute, all of those shrank from 1996 to 2002.

That is no surprise. These would not look that different if I'd shown you 1996 and 2001 the last time.

If you want to see that in a more continuous series you can turn to the next slide which just looks at the trends. The trends in the number of episodes, episode length, cost per episode, and users of care and you can see the trends from 1996 to 2002. What I was supposed to do is put together a continuous database.

The following slide then discusses what actually happened. The bottom line is in 2002 all the trends began to turn up. So as of 2002, the number of users, the number of episodes, the length per episode, and the spending in particular all began to rise after hitting a low point in 2001. In 2002, with no adjustments for population growth, with no adjustments for change in the value of the dollar, the total spending by the Medicare program for these post-acute episodes was 3 percent higher than it was eight years previously in 1996. So basically by the time you go to 2002 spending was where it was before in dollar terms plus 3 percent.

The only bit of analysis of the prior work was to answer this question, can you characterize how those changes occurred across the whole spectrum of post-acute providers? I did two things and for this analysis I just updated them to 2002 to make sure that what I did last time still held true. I did the following. For truly post-acute care, care that follows a PPS discharge, I took the discharges that had a high rate of post-acute use in 1996 and stacked the discharges from highest to lowest in terms of their 1996 rate of use, and looked to see what the rates of use of post-acute care looked like in 2002, and I got the same results that I got last time.

Discharges that were likely to use post-acute care in 1996 remained likely to use post-acute care in 2002, and the reductions in post-acute care occurred for those discharges for which post-acute use was unlikely in 1996.

For community referral home health it's a lot harder because there's no discharge to flag people with. For community referral home health I did a different thing. I generated a risk adjustment model. So I predicted any person's use of home health or any person's quantity of home health used all based on 1996 patterns of care and then applied that prediction model to 2002, found that people who looked like they were likely to use home health. You can guess the diagnoses that are predictive of home health use. They would be basically diagnoses that indicate frailty. And found once again that the reductions in home health were disproportionately on people who had a home low probability of use, not people that had a high probability of use.

So this is all by way of saying, up to slide seven, not much changed from the presentation that you saw the last time.

The new work you're going to see now talks about the end

points of these episodes. Even as the episodes are complex, the end points are complex. You can have people who are readmitted to the hospital and immediately die. You can have people who die while they are in the skilled nursing facility. You can have people who apparently go home and then die soon thereafter. So there's all kinds of different end points that may occur, some good, some of them not.

So I ordered the end points hierarchically in the following fashion. First I flagged all the people who died within 31 days of the end of the episode, then all the people would were admitted to hospice because largely they're expected to die soon. That's the criteria for entry to hospice. Then if neither of the above, then readmitted to an acute care facility, and finally, the people who apparently had a successful return to home.

I need to give you one more slide of caveats. Now you realize that this is a very simple way of looking at the end points of the episodes. I'm going to give you some caveats before I show the numbers. This is the short-term outcome. It does not address the long-run, doesn't address the people who do not use post-acute care, doesn't address their functional status at all. So there are undoubtedly other, more refined measures of the performance of the system.

All I am going to do here is two things. I'm going to show you what actually happened in 2002 for the actual mix of persons and diagnoses using care in 2002. Then I'm going to do something a little tricky. I'm going to show you what I predict to have happened in 2002 based on the mix and diagnoses of cases in 2002, and based on the outcomes that occurred on average for those cases in 1996. So with some trepidation I'm going to show you one slide that shows you the actual 1996, the actual 2002, and then what I expect to happen in 2000 based on the mix of cases and modalities used.

Here is that slide. When you compare the actual end points they do not look very good. In 2002 there are more deaths, there are more people admitted to hospice, there are more people readmitted to an acute-care facility and fewer people successfully return home or return to whatever their prior living arrangement was. The only point I want -- and all of those are statistically significant at a 5 percent level. The only point I want to make is that that appears to be due -- if you were to think of this as either being due to a shift in the mix and modality care, or shift in the performance of the system, this analysis comes down very strongly to say, no, this is a shift in the mix and modality of care. This is not a degradation of the performance of the system as far as I can tell at this point.

The death rate is -- so instead of comparing the top two lines of numbers, the actual 1996 to the actual 2002, if I compare the actual 2002 to what I would predict based on the diagnoses and based on what types of care they were getting you'll see the predictions are very close to what happened. There is no difference in the death rate from what we predicted. The use of hospice, the actual use of hospice is above what's predicted. That's because hospice wasn't used much in 1996, which is the patterns of care I used for the prediction.

Readmits are actually a little bit lower, and returns to home are actually a little bit higher than I would have predicted based on modality.

So that's pretty much the end of the speech and I'll sum up in a minute. But the bottom line you should take aware from the slide is, that as far as we can tell in the aggregate the system is performing, in terms of the end points, in terms of where people end up at the end of their episodes, just exactly as it did in 1996.

So let me summarize. Spending and total use of care began to rise in 2002 after a seven-year decline. The patterns that you saw in the prior study continued to hold true. There is a concentration of care among persons who have a high probability of use, and most of the reductions in care came from people whose probability of use in 1996 was relatively lower. Episodes ending in death went up. Episodes ending in return to the community went down. But as far as I could tell, that outcome change was entirely due to a change in the mix of the cases being treated.

Questions?

MR. BERTKO: I would just ask, were there any exogenous events between 1996 and 2002? I cannot remember whether BBA did anything to the payment stream at the time. If it did, what would be your interpretation?

DR. HOGAN: Yes. I should have brought that slide with me. Everything changed from 1996 forward. So it started with the interim payment system for home health and the last thing to go was the long-term care hospitals. Every payment system changed.

MR. BERTKO: Interpretation, please?

DR. HOGAN: Thank goodness for the professional ethics of the medical profession because not much changed in terms of those end points.

MS. RAPHAEL: If I am understanding this right, the first part of this shows that those who had high use in 1996 of post-acute care had high use in 2002. But this isn't saying that those who should use post-acute care are in fact using it.

DR. HOGAN: That's correct.

MS. RAPHAEL: It's not as if we're taking a hospital database of discharges and saying that we would predict that a certain percentage of those discharges would result in post-acute care, or that a certain type of case should result in a post-acute care episode. You are looking at patterns of utilization historically and then using that to predict what you would have expected? Do I have that right?

DR. HOGAN: Right, think of it as a risk adjustment model with one variable in it and that's the DRG. So all I said was, 80 percent of hip cases used post-acute care in 1996, then 82 percent used them in 2002. So it is a risk adjustment model with one DRG. It's no finer than that. You would like for me to have some measure of functional status upon discharge. I don't have anything with that level of sophistication. So I do not have any measure of need. All I've done is said -- you had it characterized correctly.

MS. RAPHAEL: Then the second thing that I do not fully understand is your predictor of what happens at the end of 31

days. Given changes in medical practice that have occurred even in those six years, how did you predict what would happen, how many people would end up in a hospice, how many people would be rehospitalized?

DR. HOGAN: Once again it's the average. But here it's the average by modality of care and principal diagnosis from the first post-acute bill. So if you were discharged from the hospital with a hip replacement and you went to a SNF, that was your category. I found in 1996, the average end points for those people ended up being 75 percent went home, 15 died, and 5 percent went elsewhere. I am making this up, obviously. I then found all the people in -- so this is 1996. I have the average end points for the episodes that occurred based on what type of modality they used and diagnosis.

I simply went to 2002 and found all the hip replacements that were discharged from the hospital and I stuck that end point onto those people and then averaged them up. So it's no more than saying, if nothing had changed based on the -- if the mean rate of end points had not changed based on what type of care you got and what your diagnosis was, what would your 2002 picture have looked like? The answer is, it looked exactly like the actual 2002, almost exactly like the actual 2002 picture.

MS. RAPHAEL: I think I got that. My third question is, and I don't know if you can answer this, did you see any shifts, like a higher percentage of patients going to nursing homes in 2002 than went in 1996, a higher percentage in rehab facilities, or any kind of shift in the mix of post-acute care?

DR. HOGAN: Yes, and that is principally why the actual 2002 is quite different from the actual 1996. What happened was, a greater fraction of your patients are skilled nursing facility patients. Nursing home is an ambiguous term to me. I certainly saw more people get skilled nursing facility care as their post-acute care. Whether at the end of that they went back into a nursing facility or not, I couldn't tell.

MS. RAPHAEL: But you saw a larger percentage going into the SNFs in 2002 than in 1996.

DR. HOGAN: Absolutely. You can look back on that -- in theory you could look back on this slide and infer from that -- you don't have the percentages there but the percentages should be in the table. Everything on the top is home health, everything on the bottom is everything but home health. Everything on the bottom grew. Everything on the top shrank. So, yes, the proportion of that 2002 bar that is nursing facility and other facility-based providers is clearly a higher proportion of all the cases. So the answer to your question is yes.

DR. MILLER: What you're saying is that the amount of facility care, as a proportion, in the second bar is higher.

DR. REISCHAUER: I'm wondering if we cannot say something more about Carol's question. The volume of home health services fell dramatically. The outcomes of the folks who had some kind of post-acute care doesn't seem to have changed much from what you would have predicted. While we do not have all the dimensions we would like to have, as a first conclusion you would say, things are pretty much the same there. So then the question

is, what happened to the people who would have had home health only and didn't have anything? If you could find the answer to that you could answer the question of, was there overuse in 1996, which is what precipitated a lot of the changes in 1997 and 1998.

DR. HOGAN: We started to go down that road but -- so what you would like to do is find some people in 2002 who would have been candidates for home health; they sure look like they would have used home health but they didn't. The only problem is, I can go back to 1996 and I can find people who I would have predicted would have had home health but didn't use home health.

So we were considering going down that road and giving you a comparison of the 1996 -- because it's not a comparison to only shown you 2002. My prediction is not perfect. I'll show you both and see if it shows you -- I can see the questioning looks around the table.

But by the time I got through explaining to people, here are the people who should have used it in 1996 but didn't, here are the people who should have used it in 2002 and didn't, look how they're different or aren't different, we decided that it wouldn't move matters along. But I completely understand the question, but we could not figure out a feasible way to get at the people who by 1996 practices would have used the care but in fact didn't get the care in 2002. If that is the issue, if that is the missing population that needs to be studied, we'll think about that some more. But our best shot ended up being so complicated that we didn't even believe it.

DR. MILSTEIN: Understanding this was not within the scope of what you looked at, but as I understand your analysis you were looking at your cost, you were looking at billings from these post-acute providers. From the point of view of the Medicare program and total spending on Medicare patients there is obviously a larger stream of cost per episode than simply what the post-acute provider is billing. There are bills from physicians, and from Medicare supplemental payers, there's bills for drugs.

On the face of it, holding cost constant in any aspect of the Medicare program is a victory. Do we have any clue as to how this victory would look if we were to bundle back into the cost analysis the various other aspects of health care spending for these patients during this period that was not accounted for by this analysis?

DR. HOGAN: The short answer is all of the claims costs can be put back in. What I was scratching my head over is how hard it would be to put that back in. I don't think it would be hard. I think that was actually part of the original plan, was to capture the physician and other bills. You won't capture any hospital bills because that will terminate the episode. You might capture some outpatient care, because that wouldn't necessarily terminate the episode. You might capture some DME.

My guess is it would be a small amount of money. We could certainly check that out and show it to you, that's it's just not a whole lot of money in terms of the overall scope of things.

The stuff that's beyond Medicare, the only source we have for that that we can get our hands on is the MCBS. So we can do

it. It is so small sample. We can do it and see -- we'll look at the drugs and stuff. Having had to deal with the drug benefit for my mother who is now in an assisted living facility I can tell you, all the coinsurance goes up as soon as you're not in the mail order benefit any more. So now she pays in coinsurance what she would have had to have paid for the drugs for themselves not four months ago. So, yes, we can certainly look at the out-of-pockets from the MCBS on a small sample, and look at the Medicare paid, including coinsurance, for everybody in the 5 percent of the claims.

MR. HACKBARTH: Anyone else?

As always, Chris, very good.